

Claims

1. An electronic gearshift device of a transfer case assembly for a four wheel drive vehicle, comprising:

- a motor;
- 5 a camshaft rotatably driven by the motor;
- a rail member separated from the camshaft by a predetermined distance and positioned parallel to the camshaft;
- first and second forks installed on the rail member such that they are spaced apart from each other; and
- 10 a cam fitted around and supported by the camshaft to selectively operate the first or second forks on the rail member to thereby effect gearshift.

2. The electronic gearshift device as set forth in claim 1, wherein the cam is formed with first and second operating sections for operating the first fork to effect conversion between a four wheel driving scheme and a two wheel driving scheme, and third and fourth operating sections for operating the second fork to effect conversion between a four wheel high speed driving mode and a four wheel low speed driving mode.

3. The electronic gearshift device as set forth in claim 2, wherein, in the cam, the first operating section comprises a flattened surface, the second operating section comprises a concaved surface having a predetermined radius of curvature, and each of the third and fourth operating sections comprises a plane.

4. The electronic gearshift device as set forth in claim 1, wherein first and second springs for elastically supporting the first and second forks, respectively, are provided on the rail member.

25 5. The electronic gearshift device as set forth in claim 1, wherein,

adjacent to a lower end of the first fork, a plunger which is elastically supported by a compression spring is installed on a side of the first fork such that the plunger is selectively biased by the first or second operating sections as the cam is rotated.

5           6. The electronic gearshift device as set forth in claim 1, wherein a pin roller is installed on a side of the second fork such that the pin roller is selectively biased by the third or fourth operating sections as the cam is rotated.